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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/722,524 | 11/28/2000 | Minoru Yamamoto | 1095.1146/JDH | 5988 |

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EXAMINER

EDELMAN, BRADLEY E

| ART UNIT | PAPER NUMBER |
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2153

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/722,524

Applicant(s)

YAMAMOTO ET AL.

Examiner

Bradley Edelman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

| | | | |
|-----------------------------------|---------------------------------------|---|-------------|
| Notice of References Cited | Application/Control No. 09/722,524 | Applicant(s)/Patent Under Reexamination YAMAMOTO ET AL. | |
| | Examiner Bradley Edelman | Art Unit 2153 | Page 1 of 1 |

U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|----------------|----------------|
| | A | US-6,499,031 B1 | 12-2002 | Hopmann et al. | 707/8 |
| | B | US-6,574,654 B1 | 06-2003 | Simmons et al. | 718/104 |
| | C | US-6,542,891 B1 | 04-2003 | Loen et al. | 707/8 |
| | D | US-6,470,339 B1 | 10-2002 | Karp et al. | 707/8 |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
| | I | US- | | | |
| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
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NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

DETAILED ACTION

This office action is in response to Applicant's amendments and request for reconsideration filed on October 30, 2004. Claims 1-9 are presented for examination. Claims 8 and 9 are new claims. Because of new grounds of rejection not necessitated by Applicant's amendment, this Office action is non-final.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claim 1, Applicant claims a "data processing system" and further specifies various elements that can be part of the system, including a "grouping means," "group management means," "detection means," "determination means," and "permission means." However, according to the specification, the system and all of these elements can be part of a software program. Because a software program is non-statutory (not a process, machine, manufacture, or composition of matter), the claim is therefore directed to non-statutory subject matter.

Claims 2-6 depend from claim 1, and add no statutory subject matter to the claims. Thus, claims 2-6 are rejected for the same reasons as claim 1.

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Claim 8 contains similar language as claim 1, and similarly does not claim anything more than a computer program. Thus, claim 8 is also directed to non-statutory subject matter.

Regarding claim 9, claim 9 is merely an abstract idea. The entire method can be performed inside one's head. For instance, the "group of resources" and the "member resource" can be a gymnasium floor. A person can determine whether a part of the floor is currently used by another "client" and whether that "client" intends to modify the floor (i.e. the person can surmise that as long as the client is simply exercising, the client will not modify the floor), and then the person can permit himself to use the floor when no one else is using it, and when no one else is going to modify it. Therefore claim 9 is non-statutory as well.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In considering claim 8, the phrase "the client currently using the member resource" on lines 4-5 of the claim lacks sufficient antecedent basis, and thus renders the claim unclear.

In considering claim 9, the phrase "another client" on line 2 lacks sufficient antecedent basis because no first client is mentioned. In addition, the phrase "the client currently using the member resource" on lines 3-4 of the claim also lacks sufficient antecedent basis.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hopmann et al. (U.S. Patent No. 6,499,031, hereinafter "Hopmann"), in view of Simmons et al. (U.S. Patent No. 6,574,654, hereinafter "Simmons").

Note: The terms "group" and "group of resources" as used in the claim have been interpreted in light of the specification, which provides that "the term 'group' also refers to a single element group." See specification, p. 5, lines 14-15. Thus, the "group of resources" mentioned in the claims is anticipated by a single resource, where the single resource constitutes the entire "group."

In considering claim 1, Hopmann discloses a data processing system which allocates necessary resources to requesting clients, comprising:

Grouping means for defining groups of resources; and group management means for managing the groups defined by said grouping means (col. 8, lines 22-26;

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wherein each resource constitutes its own group, and is defined and managed according to the index of tokens granted to various remote clients for the resource);

Detection means, responsive to a request from a client that demands a specific group of resources, for detecting whether the requested group includes a member resource currently used by another client (col. 6, lines 66-67; col. 7, lines 53-67, wherein a "lock" is issued to the client who has access to the resource, and any other requests for access are denied until the lock is removed);

Determination means for determining, if said detection means has detected a member resource in use, whether the detected member resource is to be modified by any other client currently using the detected member resource (col. 6, lines 66-67; col. 7, lines 53-67, i.e. a "multi-reader single writer lock" will detect if a current client using the resource has modify rights to the resource); and

Permission means for permitting the requesting client to make access to the requested group of resources when said detection means finds that none of the member resources of the requested group are being used by any other client, and when said determination means finds that no other client currently using the detected member resource intends to modify the detected member resource in use (col. 6, lines 66-67; col. 7, lines 53-67, wherein if no other clients have any access, the requesting client will get access to the resource; and even if some other clients have read access, as long as none have write access, the requesting client will still be granted access to the resource).

Note that Hopmann does not explicitly disclose making sure that the current client requesting access also does not intend to modify the resource before providing access to the requesting client. Hopmann instead gives two explicit examples of types of locks – a “multi-reader single writer lock” and an “exclusive lock.” See col. 7, lines 60-65. Nonetheless, Hopmann suggests that any type of lock could be employed by the system (col. 2, lines 27-29, “a lock can be a read lock, a write lock, or any other type of lock desired by the remote user and supported by the system”). Furthermore, it is well known that in collaborative processing systems, a lock that allows each process to read from a resource, but prevents any processes from writing to, and thus modifying, a resource may be employed, as evidenced by Simmons (col. 1, lines 54-56, “protected read lock 154 grants a process permission to read the table and guarantees that no other process is concurrently writing to the table”). Given this knowledge, a person having ordinary skill in the art would have readily recognized the desirability and advantages of including the protected read lock taught by Simmons in the system taught by Hopmann, to ensure that no one modifies files when others are reading them. Therefore, it would have been obvious to make sure that the current client requesting access to the resource does not intend to modify the resource before providing that client access to the resource.

In considering claim 2, Hopmann further discloses allocation right memory means for storing information about whether each client has a right to be allocated a group, wherein the permission means examines the information stored in said allocation

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right memory means and rejects the request if the requesting client has no right to be allocated a group (col. 8, lines 23-28, 34-51; col. 9, lines 20-24; wherein the token index stores information about whether clients have rights to access the resource group, and the index is searched when a request is made).

In considering claim 3, Hopmann further discloses grouping right memory means for storing information about whether each client has a right to define a new group, wherein said grouping means examines the information stored in said grouping right memory means and rejects the request if the requesting client has no right to define a new group (col. 8, lines 23-28, 34-51; col. 9, lines 20-24; wherein the token index stores information about whether clients have rights to set a lock on a resource that constitutes its own group, thereby defining the resource as a new group. For example, if one client has an "exclusive lock" on a resource, then each other client has no right to redefine the resource's lock rights, and therefore has no right to redefine the group consisting of that resource).

In considering claim 4, Hopmann further discloses that grouping of resources includes addition or removal of a member resource to/from an existing group (col. 7, lines 65-67; col. 10, lines 55-56, "when the timeout period expires, the lock is extinguished and the resource is released").

In considering claim 5, Hopmann further discloses that the group management means further manages a valid period of each group and automatically removes such a group whose valid period has expired (col. 7, lines 65-67; col. 10, lines 55-56, "when the timeout period expires, the lock is extinguished and the resource is released").

In considering claim 6, Hopmann further discloses that the detection means and determination means operate on a group-by-group basis (i.e. they operate on each resource, which constitutes its own group, separately).

In considering claim 7, claim 7 presents a computer readable medium storing a program for performing the same steps performed by the system of claim 1. Therefore, claim 7 is rejected for the same reasons as claim 1.

In considering claim 8, examiner has interpreted the claim (as follows) as if it had contained sufficient antecedent basis. As thus understood, Hopmann discloses a data processing system which allocates resources to requesting clients, the system comprising:

means for determining whether a member resource of a requested group of resources is currently in use by another client, and whether the member resource is to be modified by a client if a client is currently using the member resource (col. 7, lines 51-67; col. 8, lines 60-67; col. 9, lines 1-6, wherein a "multi-reader single writer lock"

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signifies that a current client is using the resource and has modify rights to the resource); and

means for permitting a requesting client to access the requested group of resources when none of the member resources of the requested group are in use and when the client currently using the member resource does not intend to modify the member resource in use (col. 6, lines 66-67; col. 7, lines 53-67, wherein if no other clients have any access, the requesting client will get access to the resource; and even if some other clients have read access, as long as none have write access, the requesting client will still be granted access to the resource).

Note that Hopmann does not explicitly disclose making sure that the current client requesting access also does not intend to modify the resource before providing access to the requesting client. Hopmann instead gives two explicit examples of types of locks – a “multi-reader single writer lock” and an “exclusive lock.” See col. 7, lines 60-65. Nonetheless, Hopmann suggests that any type of lock could be employed by the system (col. 2, lines 27-29, “a lock can be a read lock, a write lock, or any other type of lock desired by the remote user and supported by the system”). Furthermore, it is well known that in collaborative processing systems, a lock that allows each process to read from a resource, but prevents any processes from writing to, and thus modifying, a resource may be employed, as evidenced by Simmons (col. 1, lines 54-56, “protected read lock 154 grants a process permission to read the table and guarantees that no other process is concurrently writing to the table”). Given this knowledge, a person having ordinary skill in the art would have readily recognized the desirability and

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advantages of including the protected read lock taught by Simmons in the system taught by Hopmann, to ensure that no one modifies files when others are reading them. Therefore, it would have been obvious to make sure that the current client requesting access to the resource does not intend to modify the resource before providing that client access to the resource.

Claim 9 presents a method for performing the same steps as claim 8, and is thus rejected for the same reasons.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Edelman whose telephone number is (703) 306-3041. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (703) 305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

For all correspondences: (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Bradley Edelman

BE

January 5, 2005